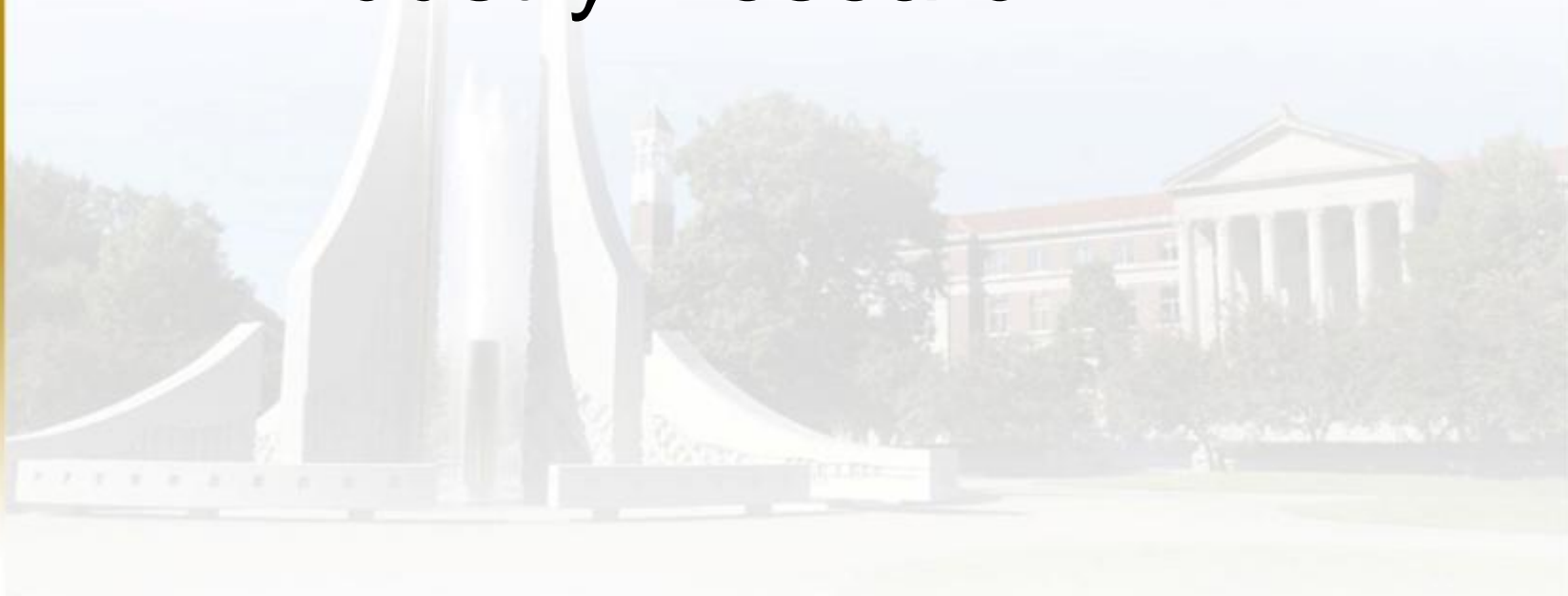


A grayscale image of the Purdue University clock tower, centered in the background. The tower has a clock face with Roman numerals and a pointed roof. The text 'PURDUE' is overlaid in large white letters, and 'UNIVERSITY' is overlaid in smaller gold letters below it, separated by a gold horizontal line.

PURDUE

UNIVERSITY

Industry Research



Office of Industry Research and Technology Programs

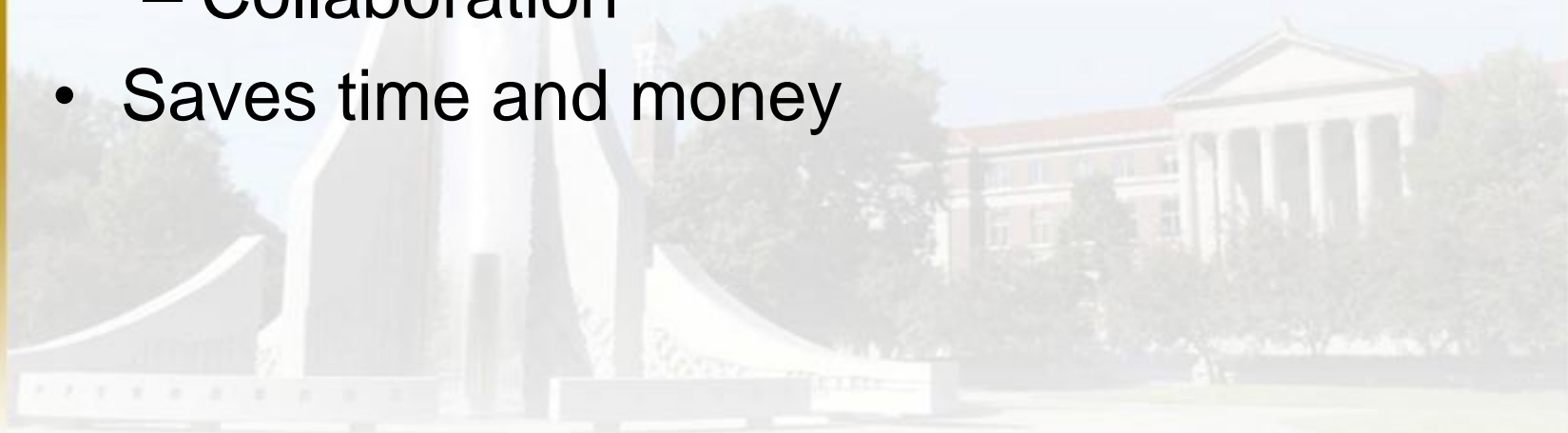
- Helps faculty researchers find industrial sponsors for their research
- Helps faculty entrepreneurs with SBIR/STTR programs.
- Helps private sector access to Purdue expertise and facilities
- Serves as ombudsman for faculty and private sector in technology/research areas

Purdue – Industry Program Emphasis

- Make Purdue accessible
 - Office of Industry Research and Technology Programs
 - Technical Assistance Programs
 - Manufacturing Extension Partnership
 - Center for Advanced Manufacturing
- Strategic technology partnerships
- Interdisciplinary facilitators
- Master contracts
- Industry ombudsman
- Broad economic development program

Master Agreement Concept

- Cover broad relationship
- Carry out collaborative projects
 - No need to negotiate individual contracts
- Builds partnership
 - Collaboration
- Saves time and money



Center for Advanced Manufacturing

- Catalyze industry – university manufacturing research efforts
 - 16 affiliated centers across university
 - Engineering:
 - Center for Laser-assisted Manufacturing
 - Center for Materials Processing and Tribology
 - Maha Fluid Power Research Center
 - Center for Systems Integrity
 - Technology
 - Product Lifecycle Management Center of Excellence
 - Krannert School of Management
 - Global Supply Chain Management Initiative
 - Dauch Center for the Management of Manufacturing Enterprises

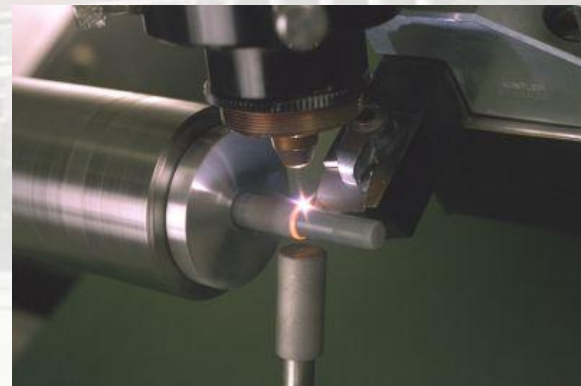
Rolls-Royce University Technology Center

- High-Mach Propulsion Laboratory
 - Initiated in 2002
 - First UTC in United States
 - 20+ graduate and undergraduate student researchers
 - Indiana 21st Century Research & Technology Fund has provided support for joint research activities



Purdue Laboratories

- Aerospace Sciences Laboratory
 - Four Wind Tunnels
 - Boeing Wind Tunnel: 4-foot x 6-foot, 250 mph
 - Boeing/AFOSR Mach-6 Quiet Tunnel
- Herrick Laboratories
 - Automotive and Transportation Research
 - Noise and Vibration Control
 - Electromechanical Systems
 - Prognostics and Diagnostics
 - Engines and Exhaust Systems
 - Thermal Systems



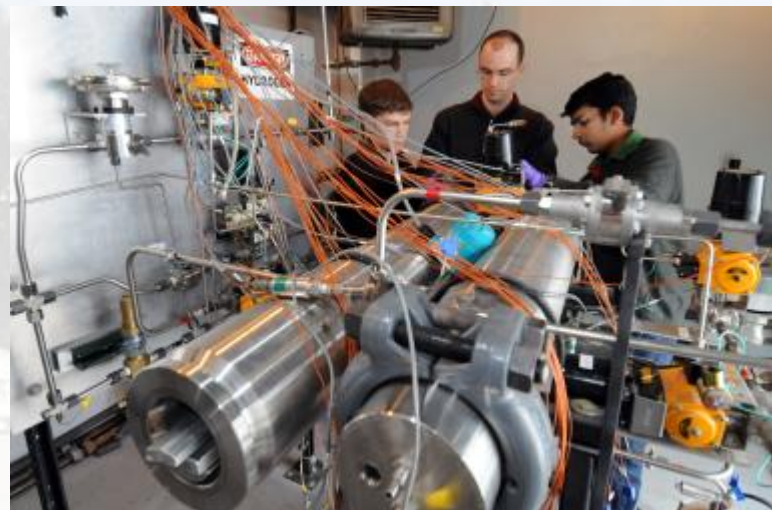
Purdue Laboratories

- Power and Energy Devices and Systems
 - Electromechanical and electromagnetic component design
 - Electric drive and power converter controls
 - Energy Conversion Research Laboratory
 - Nine research stations at a power levels from 100W - 110 kW
 - Three 28 Nm, 20,000 rpm one-quadrant dynamometers
 - 19 kW, 5900 rpm four-quadrant dynamometer
 - 37 kW, 3900 rpm four-quadrant dynamometer with sound room
 - 112 kW, 3600 rpm four quadrant dynamometer
 - Three phase 230 V I-I rms and 480 V I-I rms utility voltages are also available.



Conferences and Seminars

- Advancing Manufacturing Summit Series
- Wind Energy Seminar Series
- Pioneers in Energy Lecture
- Frontiers in Bioenergy Symposium
- Biofuels Symposium
- Battery Workshop
- Hydrogen Symposium



Industry Engagement



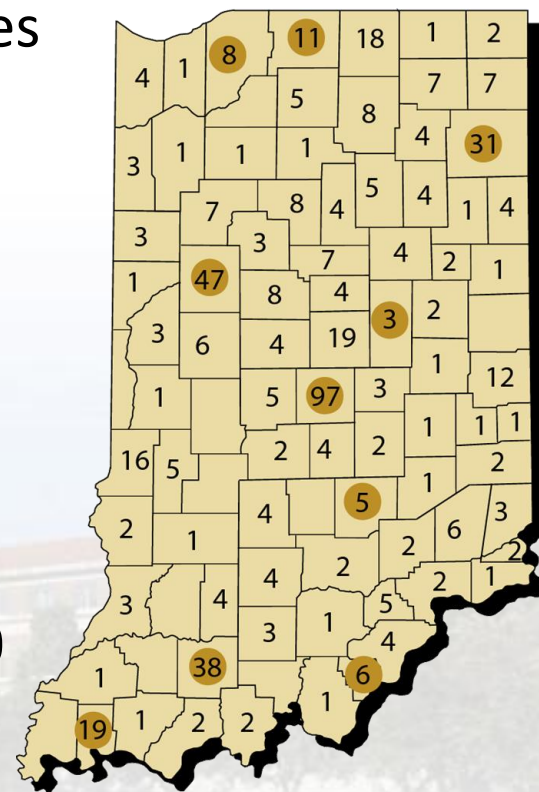
Technical Assistance Program

Funding and activity

- \$7,200,000 in funding from 101 sources
- Served 541 employers in 82 counties
- 3,731 employees trained
- 100 faculty, staff, student participants

Impacts

- Jobs added/saved 1,098
- Increased/retained sales \$54,100,000
- Cost savings \$6,800,000
- Capital investments \$26,100,000



Numbers indicate employers served by county

Technical Assistance Program

Partners past 5 yrs.

- State of Indiana
- NIST Manufacturing Extension Partnership (MEP)
- Purdue MEP Center
- US Dept. of Energy
- 2,000+ Indiana businesses

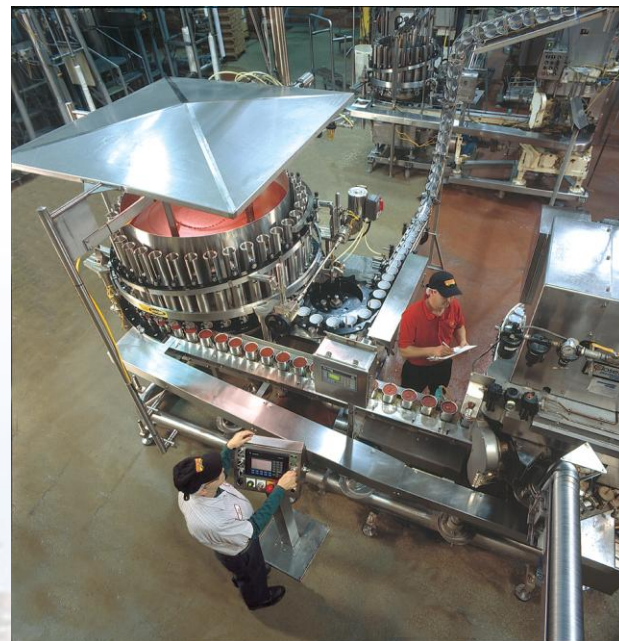
5 yr. funding & impacts

- Funding: \$28 million
- Economic impacts: \$400 million
- 15,000 trained in lean, quality, green, etc.



Manufacturing Assistance Offerings

- Leadership Development
- Lean Manufacturing
- Lean Office
- Quality Improvement
- Six Sigma Certification
- Top Line Business Growth
- Training Within Industry (TWI)
- Energy Efficiency & Sustainability
- Green Enterprise Development
- Workforce development



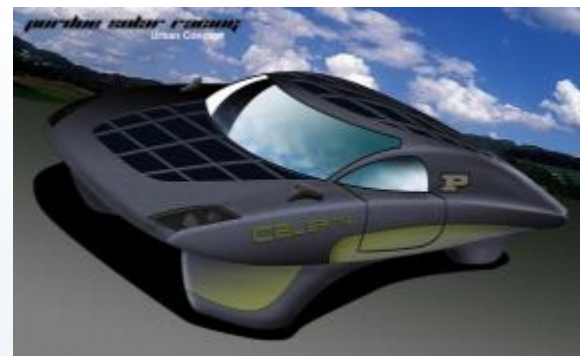
Red Gold - Orestes

Student Activities



Sample of Student Motorsports Clubs

- Purdue Motorsports Association
- Solar Racing Team
 - 2010: 1st Place Shell Eco-marathon Americas
- Opportunity Motorsports
- Electric Vehicles Club
- SAE Baja Racing Team
- Autocross Club



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